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Interlinks Between Improved Cooking Stoves, Forests Conservation and Poverty Alleviation: Experience of North Kordofan-Sudan

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Abstract

Rural households in Sudan mostly depend on firewood and charcoal as main source of energy. Therefore, greater pressure on forests of Sudan, resulting from firewood and charcoal production represents the major threat to environment and sustainable forests management. Improved Cooking Stoves (ICS) have been developed to reduce firewood consumption and hence forests conservation. Accordingly, this paper aims to compare and contrast between improved and the traditional stoves with regard to firewood energy consumption, energy utilisation efficiency, cost effectiveness and time consumed in firewood gathering, and hence their implications on forests conservation and poverty alleviation. Primary data were collected using structured questionnaires with 66 ICS users and non-users in North Kordofan state. Moreover, an experiment was conducted to measure the efficiency of the improved stoves versus the traditional ones. The results reveal that all the respondents are totally dependents on the firewood as a primary source of energy. Improved stoves users, agreed that, the new stoves have many advantages over the traditional one such as fast cooking, smoke reduction, and fire lasting long time, sturdy and stable. Moreover, the results showed that using improved stoves reduced per capita wood fuel consumption by 53 percent; household wood energy expenditure by 35 percent and the time spend in firewood gathering by 52 percent, compared to the traditional stoves. It could be recommended that efforts should be made by governmental and non governmental institutions to encourage the adoption and utilisation of the improved stoves so as to conserve forests and consequently improve the livelihood of the rural households.

Keywords: Forest conservation, improved stoves, Sudan, wood fuel

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